

**Clean Copy of the Claims**

10. An element for the casting of a liquid metal, comprising a base body made from a refractory material, said body comprising an outer surface and an inner surface defining a pouring channel for the casting of the liquid metal, wherein at least a part of the element inner surface is coated with an insulating coating comprising insulating hollow microspheres, preferably in an amount comprised between 5 and 40 weight % and forming, at the metal liquid contact, a gas impermeable layer.
11. A casting element according to claim 10, wherein the coating comprises 20 to 80 weight % of a ceramic matrix.
12. A casting element according to claim 11, wherein the ceramic matrix comprises silica or alumina.
13. A casting element according to claim 12, wherein the ceramic matrix comprises vitreous grains.
14. A casting element according to claim 13, wherein the vitreous grains comprise atomized silica.
15. A casting element according to claim 10, wherein the thickness of the coating is between 1 and 10 mm.
16. A casting element according to claim 10, wherein the impermeable layer and the refractory material are interpenetrated.
17. A casting element according to claim 10, wherein the base body is constituted from a carbon bonded material.
18. A casting element according to claim 10, wherein the casting element is a pouring shroud.
19. A casting element according to claim 10, wherein at least a part of the external surface is coated with an insulating coating comprising insulating microspheres.
20. A casting element according to claim 19, wherein the insulating microspheres comprise between 5 and 40 weight % of the insulating coating.

21. A method of coating a casting element comprising a base body made from a refractory material, said body comprising an outer surface and an inner surface defining a pouring channel for the casting of the liquid metal, comprising the steps of preparing a slip comprising insulating hollow microspheres, drying the slip at room temperature, preferably for at least two hours, and forming a gas impermeable layer from the dried slip by contacting the dried slip with liquid metal.